

ANDA RAY
Vice President,
Environment and Chief Sustainability Officer

March 28, 2014

California Energy Commission
Docket 12-EPIC-01
EPIC Second Investment Plan
Attn: Lorraine Gonzalez (Lorraine.Gonzalez@energy.ca.gov)

Subject: Comments from the Electric Power Research Institute



Dear Ms Gonzalez:

The Electric Power Research Institute (EPRI) is pleased to submit comments on the Energy Commission's Second Triennial Investment Plan. As noted in the attached comments, we feel it is extremely important for the Commission and the IOUs to address public health and environmental issues proactively as the EPIC program is rolled out, particularly when it comes to demonstration and deployment of new technology. The March 17, 2014 CEC EPIC briefing outlines many proposed initiatives and calls out a wide range of technologies that could be part of this Plan including new electronics (e.g., inverters), renewable technologies (e.g., wind and PV), bioenergy, and fossil-fueled distributed energy, such as microturbines. It is critical that these and other technologies are properly characterized to understand potential impacts so they can be addressed at an early stage and thus be prepared to adequately address any public concerns that may be raised (such as during the smart meter roll out).

We have posed some questions for the Commission to consider as part of the scope of issues to research and regarding a potential role that EPRI may play in supporting the Commission's research program and that of the IOUs. We are uniquely qualified to support the Commission with credible, objective, transparent and demonstrated technical expertise in this endeavor. We look forward to working with you on this important research program.

Sincerely,



Anda Ray
Vice President, Environment and Chief Sustainability Officer
Sincerely,

Attachment: EPRI Comments

Together . . . Shaping the Future of Electricity

These comments are being submitted to the California Energy Commission docket by the Electric Power Research Institute (EPRI) in response to a request for comments on Docket Number 12-EPIC-01, the EPIC Second Investment Plan. These same comments are also being sent to the three California IOUs for their consideration.

EPRI is a not for profit, in the public interest research, development and demonstration organization based in Palo Alto, CA. The Institute was established in 1973 as an independent, nonprofit center for public interest energy and environmental research. EPRI brings together member organizations, the Institute's scientists and engineers, and other leading experts to work collaboratively on solutions to the challenges of electric power. These solutions span nearly every area of power generation, delivery, and use, including health, safety, and environment.

These comments and questions are meant to stimulate a conversation regarding how to address potential human health and environmental issues (both positive benefits and negative impacts) associated with the implementation of the IOU's and Commission's Second Investment Plans.

1. Importance of considering employee and public health and safety as a result of deploying new integrated grid technology

We are witnessing a renaissance in how electrical energy is generated and delivered to homes, schools, and businesses. To best serve our society, the modern electric system must provide safe, reliable, affordable and environmentally responsible power as it incorporates new and emerging technologies. Inherent with the adoption of these technologies is the responsibility to understand potential human health and environmental issues, including concerns about air quality and greenhouse gas emissions, disposal of end-of-life equipment, waste and water management and electromagnetic fields/radio frequency energy to name a few. As we learned from the recent rollout of smart meters, public fear over a new technology can have unintended consequences if the public is unaware of the extent to which the electric industry is working to address these issues. EPRI has worked closely with California's investor-owned utilities as part of its environment, health and safety programs and believes that a proactive strategy for addressing the potential impacts of deploying new technologies is both prudent and responsible. The CEC's support of an objective, comprehensive and transparent research program will facilitate the deployment of these technologies, which will in turn support California's achievement of its energy policy objectives.

2. Importance of having an independent, credible and objective assessment of the technology

The goal of an environmental research investigation is to provide objective, replicable data based on accepted scientific methods. Equally important is that the investigative team has a proven and reputable track record of high-level accomplishments, as represented for example, by publications in the peer-reviewed scientific literature. These criteria are essential for assuring the integrity and quality of the research itself and informing public and regulatory communities of

any issues. Therefore it is essential that the research be conducted for the public benefit and provide a descriptive, informative synopsis of results and conclusions in clear language accessible to all stakeholders.

3. *EPRI is uniquely qualified to play the role of conducting these assessments given our experience, history and connections with the California utilities*

EPRI was established over forty years ago with a mission to conduct research, development and demonstration in the public interest on the generation, transport and use of electricity. EPRI's founders understood that technology and environment are virtually inseparable. EPRI's Environment Sector has an impressive record of delivering seminal research with worldwide recognition on topics such as air quality, water management, climate, energy analysis, sustainability, health and safety, including T&D issues such as EMF/RF and integrated vegetation management along rights-of-way. In addition to these larger research areas, EPRI has conducted specific research on technologies directly cited within the CEC's "Second Triennial Investment Plan". This includes an examination of human and public health issues associated with biomass emissions, EMF associated with smart meters, inverters and electric car chargers to name a few.

The extensive direct experience in the relevant science and working knowledge of California-based electric companies uniquely qualifies EPRI to address the human health and environmental aspects of new technology for the EPIC program. In fact, all of the California IOUs are current EPRI members and actively engaged in many of EPRI's relevant research programs.

4. Questions for the CEC

- a. To what extent has the Commission considered conducting environmental characterizations (including public health impacts) of new technologies related to the integrated grid?
- b. Would an independent and credible entity be a valuable resource to the Commission as research and demonstration projects are rolled out in response to the Investment Plan?
- c. How would an entity like EPRI best offer its services and expertise to the Commission during the procurement process?
- d. What would be the process or procedure for the Commission to have further conversations with EPRI regarding how best to address the environmental and human health aspects of the Commission's Second Investment Plans?